

16:43, 44, 45, 54, 55, 62, 63, 65, 66, 67; 17:3, 4, 5, 7, 13, 43, 45, 50, 54, 59; 18:5, 28, 35, 41, 43, 45, 51; 19:7, 38, 16, 17, 22, 24; and 20:10, 11, 12.

In de Vaal, there is not a single instance of referring to "flow of gas between said flow fields and ambient". Nor is there any reference to "flow of hydrogen".

Enclosed is the Declaration of Carl Reiser. In the middle of page 3 of the rejection, the allegation that the direction of flow of gas between the flow fields and ambient occurs by monitoring hydrogen concentration in the ambient is certainly not supported at column 9, lines 9-15. This is an incorrect statement, unsupported by the facts, and clearly opposite to the teachings of de Vaal as set forth hereinafter and in the Declaration. Similarly, in the middle of page 4, alleging that the voltage drop indicating a performance drop has something to do with the direction of gas flow is not supported at column 8, lines 22-38, nor anywhere else in de Vaal. That statement is purely contrary to the established facts, which the Declaration has taken from de Vaal itself.

There is not a single instance of referring to "flow of gas between said flow fields and ambient".

Paragraphs 4 and 5 of the Declaration establish as prima facie fact that the only monitoring of hydrogen takes place in an environment which includes oxygen. The monitoring does not relate to operation of the fuel cell, but merely to avoid explosion, as is established as prima facie fact in paragraph 6 of the Declaration. Paragraph 7 of the Declaration establishes as prima facie fact that operation of de Vaal is opposite to the claimed subject matter since de Vaal seeks to avoid excess hydrogen whereas the claims relate to avoiding a dearth of hydrogen.

Paragraphs 5, 8 and 10 establish as prima facie fact that de Vaal does not monitor hydrogen alone, but only in an environment which includes cooling air and gas from leaks.

Paragraph 9 of the Declaration establishes as prima facie fact that de Vaal **TEACHES AWAY** from the subject matter claimed herein, since he teaches that monitoring of oxygen concentration may be used as a backup for monitoring hydrogen. That is, that oxygen monitoring may be done as well instead of hydrogen monitoring.

Paragraph 11 of the Declaration establishes as prima facie fact that de Vaal does not disclose monitoring any flow whatsoever, therefore not the flow from the fuel flow fields.

Paragraph 12 of the Declaration establishes as prima facie fact that de Vaal does not disclose monitoring, in any fashion, hydrogen that is unadulterated by air.

de Vaal therefore does not disclose the subject matter in the penultimate element of claims 1, 2, 4 and 5: "sensing the direction of flow of gas between said flow fields and ambient". As is stated at the bottom of page 5 of the rejection, de Vaal also does not disclose the subject matter of the last element of claims 1, 2, 4 and 5: "disconnecting the electrical load from the fuel cell stack in the event that there is no flow of gas from said flow fields toward ambient." Since half of each of claims 1, 2, 4 and 5 is not even suggested in the reference, reconsideration and allowance of claims 1, 2, 4 and 5 over de Vaal is respectfully requested.

5.6. Claims 1 and 4 are rejected as obvious over de Vaal. In the middle of page 5, the allegation that sensing concentration is the same as sensing the direction of flow is totally incorrect and unsupported by column 9, lines 9-15, or any other part of de Vaal. As described hereinbefore, it is contrary to the facts established by paragraph 11 of the Declaration, which facts are simply recognition of the facts set forth in the reference itself. de Vaal does not disclose sensing the direction of flow of gas from the fuel flow fields toward ambient, as is required in both claims 1 and 4.

The allegation of obviousness is not supported by any facts of record and not supported by common knowledge. Applicant challenges this assertion as improper Official Notice as being not properly based on common knowledge. Applicant demands the Examiner support the assertion with adequate documentary evidence as is required in 37 CFR 104 (d) (2); In Re Zureco, 258 F.2d 1379, 1386, 59 USPQ 2<sup>nd</sup> 1693, 1697 (Fed. Cir. 2001); MPEP 2144.03 C.

Reconsideration and allowance of claims 1 and 4 over de Vaal is respectfully requested.

7. Claim 3 is rejected as obvious over de Vaal in view of Gast. Claim 3 is patentable as depending from claim 2; claim 2 is patentable because de Vaal does not disclose sensing the direction of flow between the flow fields and ambient and de Vaal does not disclose disconnecting the electrical load if there is no flow, as is admitted at the bottom of page 5 of the Office Action. Therefore, reconsideration and allowance of claim 3 over both references is respectfully requested.

To save the Examiner considerable time when this case is taken up, a short phone call is recommended should any issue herein still be unresolved. A few minutes on the phone could clarify a point, or result in a supplemental response which would further limit or dispose of issues. A five minute phone call can save the Examiner a lot of work. Such a phone call would be deeply appreciated.

Respectfully submitted,



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